REMARKS

I. Introduction

This paper is in response to the non-final Office Action mailed November 25, 2008. A petition for a one-month extension of time and associated fee are filed with this paper. The claims are amended to withdraw claims 1-18 and 34-37. Applicants acknowledge that the Office Action examined claims 19-33 and 38 and thank the Examiner for that clarification. Claims 19-33 and 38 remain pending.

Applicants traverse the rejections in the Office Action of the pending claims. Reconsideration and allowance of all pending claims is respectfully requested in view of the remarks below.

II. Section 102(e) Rejection

The Office Action rejected claims 19, 27, 28 and 33 under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent Publication No. 2004/0100589 to Ben-David, *et al.* ("Ben-David"). Applicants traverse the rejection of claims 19, 27, 28 and 33 at least because (1) Ben-David fails to disclose or suggest each claimed element; and (2) in any event, Ben-David fails to disclose or suggest the elements as arranged in the claim.

Ben-David relates to a system and a method for displaying image data of a plurality of colors. *See* Abstract. Through Figure 8, Ben-David discloses a white light beam provided by a white light source. *See* Ben-David, ¶ 0094. The white light

beam is collected and focused by a collimating lens 106. *See Id.* Next, dichroic mirrors 108, one for each primary color, filter the light beam to produce light of each desired primary color. *See Id.* Spatial light modulators (SLM) 110 then modulate the filtered light according to the data of the image to be produced on a display screen 112. *See Id.* at ¶ 0095. The beams are combined at the display screen 112. *See Id.*

Instead of facilitating color uniformity by matching primary colors and decreasing color shifts without limiting brightness as contemplated by the present application (*see* p. 6, lines 3-14), Ben-David seeks to expand the color spectrum for displaying images using a system that can process four or more colors; improving over the use of just three primary colors. *See, e.g.*, Ben-David, ¶ 0015. These divergent solutions are evident in the differences between the claimed invention and the Ben-David disclosure.

A. Ben-David Fails to Disclose or Suggest Each Element

A reference can anticipate a claim only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Each element recited in claims 19, 27, 28 and 33 is not found, expressly or inherently described, in Ben-David. For example, Ben-David fails to disclose or suggest at least "controlling the spectral energy distribution of the light entering into the color separating and re-combining device without reducing the overall brightness of the image," as in claim 19.

Specifically, the Office Action failed to identify any device disclosed or suggested by Ben-David that is "a separating and re-combining device." The Office Action appears to interpret dichroic mirrors 108 as "a separating and re-combining device" and as having the function of "controlling the spectral energy distribution of light entering into the color separating and re-combining device without reducing the overall brightness of the image." *See* Office Action, p. 3. The Applicants respectfully submit that such an interpretation is incorrect. Even assuming dichroic mirrors 108 separate light through filtering, the dichroic mirrors 108 do not re-combine the light. Thus, one of ordinary skill in the art would not have understood dichroic mirrors 108 to be a separating and re-combining device. The Office Action acknowledged as much, stating that the dichroic mirrors 108 are "for separating and reflecting the light to the SLM 110." *See* Office Action, p. 3. Reflecting light is not re-combining light.

Recombination, if it occurs in the system described by Ben-David, occurs after the SLMs 110, not before the SLMs 110. *See* Ben-David at ¶ 0095. Thus, the system in Ben-David does not "recombine [the light] towards the SLM 110" as alleged by the Office Action. *See* Office Action, p. 3.

In any event, even assuming the dichroic mirrors 108 are "a separating and re-combining device," which the Applicants do not concede, nothing in Ben-David discloses or suggests "controlling the spectral energy distribution of the light entering into" the dichroic mirrors 108 "without reducing the overall brightness of the image." The Office Action contended that "the mirrors 108 control the light passing through

and recombine it towards the SLM 110" and "that all the light is either being passed to the SLM or to the next mirror for the next light," concluding "[t]here is no loss of light in this reflecting process."

Controlling pass-through light, however, is not controlling light entering a device, much less controlling the spectral energy distribution of light entering a device. "Entering" and "passing through" are different concepts. The Applicants respectfully submit that the Office Action failed to acknowledge the differences between them and failed to point to any disclosure even suggesting to one of ordinary skill in the art that the spectral energy distribution of the light entering a device is controlled without reducing the overall brightness of the image. In particular, such control is not disclosed or suggested in the system described in Ben-David – a system that introduces additional primary colors for image display.

Because the dichroic mirrors 108 in Ben-David are not a "color separating and re-combining device" and because Ben-David does not disclose or suggest "controlling the spectral energy distribution of the light entering into the color separating and re-combining device without reducing the overall brightness of the image," Ben-David fails to anticipate claim 19. Claim 27 depends from and further limits claim 19. For at least the same reasons explained above, claim 27 is also patentable over Ben-David.

Claims 28 and 33 are allowable for similar reasons as for claim 19. For example, claim 28, and thus claim 33 that depends from it, recites "a color separating

and re-combining device," which Ben-David fails to disclose or suggest. Accordingly, Applicants kindly request withdrawal of the rejection and allowance of claims 19, 27, 28 and 33.

B. Ben-David Fails to Disclose Each Element as Arranged in the Claims

Even if each and every element is found in a single prior art reference, the reference must also disclose the elements "arranged or combined in the same way as in the claim" to anticipate the claim. *Net MoneyIN, Inc. v. Verisign, Inc.*, 545 F.3d 1359, 1369-70 (Fed. Cir. 2008); *see also In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). Assuming Ben-David discloses each element, which is not the case as shown above, Ben-David fails to disclose the elements "arranged or combined in the same way as in the claim." For this additional reason, the Applicants submit claims 19, 27, 28 and 33 are allowable.

As an example, claim 19 requires "controlling the spectral energy distribution of the light entering into the color separating and re-combining device without reducing the overall brightness of the image" before "modulating the controlled light with at least one spatial light modulator (SLM) to form an image."

Ben-David discloses controlling light, such as by lens (labeled 117 in Figure 8, labeled 114 in text) after modulating light using SLM 110. *See* Ben-David, ¶¶ 0095-0096. Accordingly, Ben-David does not disclose controlling light, much less "controlling the spectral energy distribution of the light entering into the color separating and re-combining device without reducing the overall brightness of the

image" and "modulating the controlled light with at least one spatial light modulator (SLM) to form an image," as arranged in claim 19 and the Office Action failed to point to any disclosure by Ben-David illustrating and teaching such an arrangement.

Furthermore, claim 28 requires "a first adjustable bandpass filter capable of controlling the spectral distribution of light in at least one color channel" before "an integrating device capable of integrating the light produced by the illumination source as filtered by the first adjustable bandpass filter" and before "a color separating and re-combining device capable of receiving the integrated light from the integrating device,…." The Office Action equated "filters" from Ben-David ¶ 0100 as the first adjustable bandpass filter. *See* Office Action, p. 4. However, the Office Action made no finding that these filters, even assuming they are capable of controlling the spectral distribution of light in at least one color channel (they are not), are before "an integrating device" and "a color separating and re-combining device," as required by claim 28. Furthermore, Ben-David fails to disclose or suggest that these "filters" are before "an integrating device" and a "color separating and re-combining device."

Because Ben-David fails to disclose elements as arranged in the claims, Ben-David fails to anticipate claims 19, 27, 28 and 33. Withdrawal of the rejection and allowance of claims 19, 27, 28 and 33 is kindly requested.

III. Section 103(a) Rejections

The Office Action rejected claims 20-26, 29-32 and 38 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Ben-David in view of U.S. Publication No. 2001/0048560 to Sugano ("Sugano). Each of claims 20-26, 29-32 and 38 depend from and further limit one of claim 19 or claim 28. Reasons for allowance for claims 19 and 28 are provided above. For at least those same reasons, claims 20-26, 29-32 and 38 are also patentable. Accordingly, Applicants request withdrawal of the rejection and allowance of claims 20-26, 29-32 and 38.

Claims 20-26, 29-32 and 38 are patentable for other reasons. For example, the Office Action failed to establish *prima facie* obviousness. To establish *prima facie* obviousness of a claimed invention under 35 U.S.C. § 103, the Office Action must show, either from the references themselves or in the knowledge generally available to one of ordinary skill in the art, that it would have been obvious under *Graham* v. *John Deere Co*. to modify the references or to combine teachings in the references to arrive at the claimed invention. *See* MPEP § 2143; *KSR Int'l Co.* v. *Teleflex, Inc.*, 550 U.S. 338, 82 U.S.P.Q.2d 1385, 1395-96 (2007). Such a showing requires Examiners to determine whether there was an apparent reason to combine elements in references and to articulate that reason. *See KSR Int'l Co. v. Teleflex, Inc.*, 82 U.S.P.Q.2d at 1596.

The Office Action appears to contend that one of ordinary skill would have been motivated to combine the teachings of Ben-David (a system disclosing light

from a white light source) with the teachings of Sugano (a system alleged by the Office Action to disclose multiple light sources, and that discloses a light source for each primary color). The Office Action's mere conclusory statements that there is some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to combine these prior art reference, and for example destroy the white light source in Ben-David using a light source for each primary color, are impermissible. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)

The *Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in KSR International Co. v. Teleflex*, Federal Register, Vol. 72, No. 195, p. 57527, 34 (October 10, 2007) identify the findings Office personnel must articulate to reject claims on the basis of some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or combine prior art reference teachings. *Also see* MPEP § 2141 *et seq*. The findings include the following:

(1) a finding that there was some teaching, suggestion, or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;

(2) a finding that there was a reasonable expectation of success; and

(3) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration.

Examination Guidelines for Determining Obviousness, Federal Register, Vol. 72, No. 195, at pg. 57534.

The Office Action failed to articulate any finding that there was a reasonable expectation of success and merely offered conclusory statements that use impermissible hindsight bias in its finding that there was an alleged teaching, suggestion or motivation to destroy the illumination source providing white light in Ben-David with multiple illumination sources – one for each primary color – from Sugano. Furthermore, the Office Action failed to explain how the combination would not destroy the goal of the Ben-David system to use more than three primary colors.

Accordingly, the Applicants submit that the Office Action failed to establish *prima facie* obviousness and requests withdrawal of the rejection. Should the Office still opine, after reviewing the present response and the *Examination Guidelines for Determining Obviousness*, that one or more of the pending claims are obvious, a full and clear statement of the grounds on which these claims are rejected pursuant to MPEP § 707.07(d) is requested so that any rejection is clearly articulated to provide the Applicants with the opportunity to provide evidence of patentability or otherwise reply completely at the earliest opportunity. *See* 35 U.S.C. § 132; MPEP § 706.

CONCLUSION

The undersigned respectfully submits that all pending claims are in a condition for allowance. Any fees due at this time may be charged to Deposit Account number 11-0855. If there are any matters that can be addressed by telephone, the Examiner is urged to contact the undersigned attorney at 404-745-2520.

Respectfully submitted,

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